CLAIMS

Sub a1

1. A peptide encoded by an operon including any of the genes identified herein as *tatA*, tatB, *tatC*, *tatE*, *mdoG*, *creC*, *recG*, *yggN*, *eck1*, *iroD*, *iroC*, *iroE*, *mtd*2 and *ms*1 to 16, obtainable from *E. coli* K1, or a homologue thereof in a Gram-negative bacterium, having at least 30% homology at the amino acid or nucleotide level, or a functional fragment thereof, for therapeutic use.

2. A peptide according to claim 1, comprising any of the amino acid sequences identified herein as SEQ ID NOS. 2, 5, 7, 9, 11, 12, 13, 14, 16, 18, 19, 21, 23, 24, 25, 26, 28, 29, 31, 32 and 35-48.

3. A polynucleotide encoding a peptide according to claim 1 or claim 2, for therapeutic use.

4. A host transformed to express a peptide according to claim 1 or claim 2.

5. A vaccine comprising a peptide according to claim 1 or claim 2, or the means for its expression.

6. A vaccine comprising a microorganism having a virulence gene mutation, wherein the gene encodes a peptide according to claim 1 or claim 2.

7. A vaccine according to claim 6, having a virulence gene deletion in two genes, wherein one gene encodes *tatA* and the other encodes *tatE*.

8. A vaccine according to claim 6, wherein the gene lies within a pathogenicity island, wherein the island comprises a gene identified herein.

9. Use of a product according to any of claims 1 to 4, or SEQ ID NO. 33, for screening potential drugs or for the detection of virulence.

10. Use of a product according to any of claims 1 to 4, for the manufacture of a medicament for use in the treatment or prevention of a condition associated with infection by a Gram-negative bacterium.

11. Use according to claim 10, wherein the bacterium is *E. coli*.

add a2

add B1

AMENDED SHEET